

Internet-enabled internationalisation

A review of the empirical literature and a research agenda

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Internet-enabled internationalisation: A review of the empirical literature and a research
agenda

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Abstract

The purpose of this paper is to review existing empirical research on Internet-enabled internationalization and make suggestions for future research, which could promote theory development and advance the research topic. In total, 47 studies were included in the review. The review demonstrates the need for additional research on numerous issues, including: exploring the important role of complementary organizational resources and the long-term effects of Internet-enabled internationalization. The findings from this literature review demonstrate that while research on Internet-enabled internationalization has advanced over the past few decades, numerous questions remain unanswered. This provides fertile ground for continued development in internationalization research.

Keywords: Internet-enabled internationalisation; Internationalisation; Internet; Literature review; Narrative synthesis; Research agenda; Complementary resources; Long-term effects

Internet-enabled internationalisation: A review of the empirical literature and a research agenda

The topic of Internet-enabled internationalization, defined as the increasing involvement of firms in international markets through the utilization of the Internet, has received increasing attention as a topic of academic inquiry (Gabrielsson and Gabrielsson, 2011; Glavas and Mathews, 2014; Sinkovics et al., 2013; Reuber and Fischer, 2011). Many have argued that the introduction and dissemination of the Internet has provided firms with an unprecedented opportunity to reduce, and perhaps even eliminate, many of the traditional barriers that has constrained firms' ability to initiate, develop or sustain business operations in foreign markets (Loane, 2006; Berry and Brock, 2004; Hamill, 1997). Consequently it has been argued, that the Internet has been an important catalyst for driving firm internationalization, why the Internet has also been described as the most important innovation in recent years for firms seeking to expand their business across national borders (Mostafa et al., 2005).

To date, little attempt has been made to summarize and critically evaluate previous studies within this research area. In relatively new topics, such as Internet-enabled internationalization, a comprehensive review of existing literature can be of vital importance for the development of the research area (Torraco, 2005; Rousseau et al., 2008). First, a comprehensive review of existing literature can help conceptualize the topic (Torraco, 2005) and help extend and develop theory related to Internet-enabled internationalization (Denyer and Tranfield, 2006). Second, considering the absence of a comprehensive review there is a real risk that that previous studies on Internet-enabled internationalization remain isolated with their potential cumulative advantage for advancing knowledge in the field being neglected (Hoon, 2013). Third, the review can help identify contending findings and identify productive lines for future research

(Torraco, 2005). Thus, a literature review that systematically synthesizes existing literature on Internet-enabled internationalization in an integrated way is considered an urgent matter in order to extend and develop theory.

The purpose of this study is to systematically review existing literature and provide recommendations for future research. Thus, the aim is to stimulate further research by pinpointing areas of unresolved issues, so that our understanding of this emerging phenomenon is extended. Consequently, the article is intended for fellow researchers, who are interested in the topic.

To make these contributions, the paper proceeds as follows: After a description of the review methodology used to identify and review the literature, 47 IEI-related articles are critically reviewed and synthesized adopting a narrative synthesis approach. Based on this analysis, several important gaps in the existing literature are identified. Each gap is then discussed and areas for future research are suggested.

Review methodology

Search Strategy and Inclusion Criteria

The identification of relevant studies to be included in the review is most fundamental challenge in the review process (Petticrew & Roberts, 2006). Arriving at a complete coverage of the literature is imperative in order to reduce the introduction of bias into the review and provide the best possible foundation for future research (Rousseau et al., 2008; Whittemore and Knafl, 2005). Without a complete coverage of the literature, the review fails to appreciate the full body of evidence (Rousseau et al., 2008). In order to identify existing literature the review must utilize a range of different search techniques as different search techniques identify unique references for inclusion in the review (Papaioannou et al., 2010). Thus, relying on multiple search techniques reduces the risk of missing relevant studies because.

Following Keupp, Palmié and Gassmann (2012), the review was limited to peer-reviewed journal articles, omitting books, book chapters, and other non-refereed publications, as journal articles can be considered validated knowledge. First, conventional keyword searching included keyword searches using electronic databases such as ABI/Inform, Business Source Premier, Emerald, Scopus, and Web of Science. To be considered for the review, at least two of the following keywords, had to occur in the title or abstract: (1) Internet, information techno*, World Wide Web, electronic comm*, electronic business; and (2) internationali*, international busi*, international entrepre*, export, international market*, international growth. These keywords were selected using a two-stage procedure. First, based on the research question, two keywords were identified: (1) Internet and (2) internationalization. Second, similar and related keywords (e.g. synonyms, broader terms and narrower terms) were identified using a subject thesaurus. Third, related keywords were identified from relevant studies identified before the review.

The total number of potentially relevant studies retrieved using these search strings alone was 305. However, after reviewing their titles and abstracts against the purpose of this article, the number of relevant articles for further review was reduced to 80. Based on a review of the full text, another 36 articles were excluded. Second, reference lists from all papers meeting the inclusion criteria were checked to make sure any relevant references, not identified from keyword searching, were added to the final list of literature. Finally, citation searching was used to take key seminal papers and search forward in the published literature. As illustrated in Table 1, the identified articles were mainly published in international business journals. However, IEI articles were also identified in journals focusing on marketing, entrepreneurship and general management.

Insert table 1 around here

Data Synthesis

Data synthesis refers to “*the systematic accumulation, analysis and reflective interpretation of the full body of relevant empirical evidence related to a question*” [Rousseau et al., (2008), p. 505] and be compared much to the process of assembling a jigsaw of evidence (Petticrew and Roberts, 2006).

While many different methods are available for synthesizing the data from individual articles (Dixon-woods et al., 2005), we adopted the ‘narrative synthesis’ method for our review, as it allowed us to synthesize both quantitative and qualitative studies within a single review (Dixon-woods et al., 2005; Whitemore and Knafl, 2005). Narrative synthesis “*focuses on how studies addressing a different aspect of the same phenomenon can be narratively summarized and built up to provide a bigger picture of that phenomenon*” [Denyer and Tranfield, (2006), p. 219] and can be seen as a cumulative process where existing literature is narratively summarized and integrated in order to provide a bigger picture of that phenomenon (Hammersley, 2001).

Following Petticrew and Roberts (2006), the narrative synthesis procedure was broken down into three stages: (1) organizing the literature into logical categories; (2) analysing the findings within each of the categories; and (3) synthesizing the findings across all included studies. First, after retrieving the studies included in the review, we extracted the relevant data from the studies by using a pre-defined and standardized extraction sheet.

Next, we divided the articles into three groups based on their theme or research focus. After all articles were organized into themes, an annotated bibliography was

created that included a narrative description of the findings and a critical appraisal of quality (Petticrew and Roberts, 2006).

Finally, the findings across all studies within each theme were synthesized using cross-case (or cross-study) analysis (Dixon-woods et al., 2005). The purpose of this final step was to produce an overall summary of the findings taking into account the variations between the included studies in terms of quality, research design, sample, context etc. (Petticrew and Roberts, 2006). An important part of this process involves identifying and explaining commonalities and differences between the studies. To facilitate the comparison of the findings, summary tables displaying summarized data from all included studies were used.

Findings

As illustrated by Table 2, the thematic analysis identified three prominent and recurrent themes, namely: (1) antecedents and drivers of IEI (e.g., what factors explain the adoption of IEI); (2) role of the Internet in firm internationalization (e.g., how firms use the Internet for internationalization purposes); (3) consequences and outcomes of IEI (e.g. how using the Internet as an instrument to increase involvement in foreign markets impacts internationalization patterns and firm performance). In the following, the findings in each of these themes is summarized and assessed.

Insert table 2 around here

Antecedents and drivers of Internet-enabled internationalisation

The first group of studies focused on the antecedents of IEI, identifying the factors that facilitate or inhibit the use of the Internet in the internationalization process. Research to date has provided important insight into this topic and identified a number of important antecedents and drivers that play an important function in explaining firms' involvement in IEI. These antecedents can broadly be classified into *endogenous* antecedents, that is, factors that are internal to the firm, and *exogenous* antecedents, that is, factors that are external to the firm and are largely beyond management's control.

Endogenous antecedents and drivers. The endogenous antecedents and drivers can be broadly categorized into two groups: *firm characteristics* and *managerial characteristics*. The firm characteristics include, among others, product characteristics, resources and capabilities and marketing channel characteristics (e.g. Cho and Tansuhaj, 2013; Gabrielsson and Gabrielsson, 2011; Moon and Jain, 2007). Existing research has successfully emphasized the centrality of product characteristics on firm's decision to adopt IEI. For instance, Moon and Jain (2007) identified a positive relationship between the suitability of a firm's product to international Internet marketing activities, and the degree of IEI in exporting firms. Similarly, based on a case study consisting of 35 cases, Gabrielsson and Gabrielsson (2011) found that the suitability of products for Internet sales were important in explaining whether born global firms utilized the opportunities afforded by the Internet in their sales channel strategy. It has been suggested that standardized products are more suited for Internet-based sales, whereas medium or highly complex products offered to industrial customers are less suitable for Internet sales because of the need for personal contact and support (Moen et al., 2003).

Another firm-level antecedent that have been examined in existing literature is the firm's resources and capabilities. Research suggests that the firm's resources and capabilities are related to a firm's successful pursuit of international opportunities

(Reuber and Fischer, 2011). For instance, a firm's existing IT capabilities are found to be positively related to the use of the Internet for internationalization purposes, including Internet marketing research, Internet promotion and Internet product support services (Moon and Jain, 2007). Others have studied how the firm's strategic orientation influence the assimilation of e-business and found that the more aggressive the firm's strategic orientation, the greater its assimilation of e-business (Raymond et al., 2005). Finally, organizational innovativeness, or a firm's attitude toward change, was found to have a positive impact on exporting firms use of the Internet for a number of different activities in the value chain, from advertising and marketing to service and support (Moon and Jain, 2007).

The degree of internationalization has also been mentioned as an important antecedent of IEI. Despite much of the existing literature on IEI implicitly treats firm internationalization as the consequence of IEI, others argue that there is a reciprocal relationship between the two. For instance, based on a large-scale survey of more than 2100 firms in 10 countries across 3 industries, Kraemer, Gibbs and Dedrick (2005) found that firms with different degrees of internationalization exhibit different patterns of e-commerce use and argues that firm internationalization is a significant predictor of both the extent and type of e-commerce use. Similarly, Gabrielsson and Gabrielsson (2011) found that the global expansion stage was important in explaining Internet-based sales channel strategies in born global firms. While none of these studies are able to establish causality due to their research design, the argument is that while the Internet has perhaps enabled SMEs to explore foreign markets, increasing internationalization also increases the need for SMEs to implement Internet technology (Yu et al., 2005).

While existing literature has been criticized for not appreciating the central role of the individual decision-maker in explaining SMEs involvement in IEI (e.g. Glavas and Mathews, 2014), a number of studies have focused on examining how different

managerial characteristics influence firm's involvement in IEI. It has been argued that the decision to internationalize and to take advantage of the opportunities afforded by the Internet in this process is driven by the individual manager. Thus, any attempts to explain IEI must not only address firm-level characteristics but also characteristics of the key decision-maker (Berry and Brock, 2004). In general, these studies confirm that managerial characteristics are important in explaining IEI. A number of studies emphasized the centrality of the decision-makers prior experience in explaining firm's involvement in IEI. These studies have focused on two types of experience: international experience and Internet experience. While it has been suggested that decision-makers' prior international business experience will positively influence the use of the Internet for international business, existing research not been able to support this proposition. Instead, it has been found that international business experience was unlikely to impact significantly upon firms involvement in IEI (Berry and Brock, 2004; Glavas and Mathews, 2014). Others have even identified an opposite relationship between previous international experience and IEI arguing that firms rely more on IEI when the decision-maker has little international experience (Morgan-Thomas and Bridgewater, 2004). Instead, firms tend to rely more on traditional mechanisms of internationalization when the key decision-makers has prior international business experience (Glavas and Mathews, 2014). In contrast, key decision-makers Internet experience has been found to influence firms involvement in IEI more than their international business experience (Berry and Brock, 2004; Glavas and Mathews, 2014), suggesting some sort of learning advantage of newness (Autio et al., 2000). A few studies have focused specifically on examining the link between *entrepreneurial orientation* and IEI. For instance, Mostafa et al. (2005) investigated the link between entrepreneurial orientation and commitment to the Internet. Based on a cross-sectional study of 158 based manufacturing SME exporters the findings of the study suggests that

SMEs are more likely to be committed to IEI and pursue international expansion by taking advantage of the opportunities afforded by the advent of the Internet, when decision-makers are innovative, proactive and risk seeking (Mostafa et al., 2005). As such, the authors argued that entrepreneurial-oriented managers are more committed to the Internet and are more likely to exploit those opportunities provided by the Internet. These findings are supported by a recent study by Glavas and Mathews (2014) that examines the relationship between managerial characteristics and the use of the Internet for international business. Based on eight in-depth case studies, the authors find that SMEs are more likely to take advantage of the Internet for expanding into foreign markets when key decision-makers are characterized by high international innovativeness and international proactiveness (Glavas and Mathews, 2014). However, international risk-taking propensity was not found to have any significant impact on SMEs involvement in IEI (Glavas and Mathews, 2014). Finally, others have focused on the values and perceptions of key decision-makers and finds that specific international entrepreneurial values are associated with Internet adoption, as well as the inclination of the firm to develop and initiate international activity (Glavas et al., 2014). In sum, these studies have highlighted the centrality of the individual decision-makers in the adoption and success of IEI.

Exogenous antecedents and drivers. Existing research has also successfully identified a number of factors external to the firm, which are also of relevance, including competitive intensity, environmental uncertainty, and institutional environment. In a recent study, Cho and Tansuhaj (2013) examined how environmental uncertainty influenced SMEs' decision to use e-intermediaries for exporting. Based on a cross-sectional survey of 123 Korean exporters their findings showed how SMEs' are more likely to use e-intermediaries when the environment is uncertain. Similarly, others

have found that exporting firms are more likely to rely on the Internet for a number of different activities, including marketing research, product development, promotion and customer support, in uncertain and turbulent markets (Moon and Jain, 2007).

However, other empirical studies have failed to establish a causal link between IEI and environmental uncertainties. For example, a recent study indicates a negative relationship between using the Internet as an alternative to a physical presence in international markets and environmental turbulence, suggesting that firms prefer to be physically present in the market, when market turbulence is high (Sinkovics et al., 2013). Others have looked into how competitive intensity, which reflects the nature of inter-firm rivalry with a firm's target market, influences the use of the Internet among exporting firms (Moon and Jain, 2007). Their findings show that exporting firms are more likely to execute international Internet marketing activities when the inter-firm rivalry is perceived as intense.

Taken together, existing studies highlight the impact of firm, managerial and environmental characteristics on firms decision to use the Internet for international business activities and emphasizes that any theoretical framework that attempts to explain why firms decide to take advantage of the opportunities afforded by the advent of the Internet when internationalizing must take into consideration both endogenous as well as exogenous antecedents.

Role of the Internet in internationalisation

Another recurring theme concerns *how* firms are using the Internet to conduct or support international business activities. Essentially, this literature was a response to the lack of focus on recent technological developments in the internationalization literature, which, until then, failed to incorporate the role of the Internet in internationalization theories (Prashantham, 2005).

From a business perspective, the Internet has very diverse possibilities for application. Broadly speaking, the Internet can be used for information acquisition, information dissemination, and information sharing (Brock & Zhou, 2005). These applications could potentially lead to enhanced knowledge about internationalization and foreign markets, social capital, and awareness, as discussed below.

Information acquisition. Arguably, the Internet may be used to facilitate the process of learning in the internationalizing firms (Loane, 2006). Knowledge has always been central in internationalisation theories and has been identified as an important barrier hindering firms ability to initiate, develop and sustain operations in foreign markets and will therefore influence the internationalisation trajectories of firms (Fletcher and Harris, 2012; Casillas et al., 2009; Johanson and Vahlne, 1977; Leonidou, 2004). Thus, knowledge and information are both important resources, when firms seek to increase their involvement in foreign markets.

With the introduction of the Internet, which can best be described as the embodiment of human knowledge (Fuchs, 2008), companies now have an easily accessible way in which to acquire new knowledge and thereby enrich their limited resource base for internationalization (Etemad, Wilkinson, & Dana, 2010). Concurrently with the rapid dissemination of the Internet, the number of credible sources of information has exploded (Nguyen & Barrett, 2006). By utilizing the many new and more advanced search technologies, users are now finding it easier than ever to sort through this mind-boggling amount of information and find what is relevant in a particular situation. Thus, the Internet can potentially reduce the uncertainty that typically accompanies internationalization by demystifying foreign markets (Yamin and Sinkovics, 2006; Mathews and Healy, 2007). Companies are learning that the Internet has the potential to reduce and eliminate the extent to which managers perceive differences across foreign markets, also referred to as “psychic distance” (Nieto &

Fernández, 2006). Hence, the Internet can reduce entry barriers by enabling firms to evaluate relevant foreign markets, access information concerning competitors, and search for potential partners and customers in foreign markets.

Given the potential of the Internet to facilitate the process of learning in internationalising firms, Petersen, Pedersen and Sharma (2003) suggested that future studies needed to re-consider the role of knowledge in determining internationalisation trajectories, as the Internet may have changed knowledge from being a limiting barrier to being a catalyst in firms' internationalisation process. Thus, the Internet provide firms with a way to acquire new knowledge and thereby enrich their resource-base for internationalisation (Etemad et al., 2010; Berry and Brock, 2004).

Information dissemination. An increasing number of studies emphasize the importance of the Internet as a marketing medium (Bianchi and Mathews, 2016). Potentially, the Internet allows firms to disseminate information regarding the company and its products to every corner of the world. It has been emphasized that “*in principle, an Internet firm gains immediate access to international customers by virtue of launching a website*” [Kotha et al., (2001), p.770], while others have observed, creating a website causes the firm to become international “*whether it planned to or not*” [Lituchy and Rail, (2000), p.90]. This is because the Internet enables reach to be increased nationally and internationally at low cost by making content available in electronic form. Furthermore, the Internet enables access to more detailed information about products, prices, and availability, fosters greater interactivity and customization to engage customers, and provides more up-to-date information. Although much of the early literature on IEI was overconfident in assessing the effectiveness of the Internet as a marketing medium, a more realistic understanding of the possibilities offered by the Internet now prevails. For instance, a website will only have a global reach if it is visible, and will only attract traffic if promoted effectively (Hoffman & Novak, 2000).

Furthermore, websites need to be country-specific; i.e., adapted to the local language and culture in the target market (Kotha et al., 2001). Thus, while a website may attract customers from anywhere, more effort is usually required in terms of promotion and localization.

Information sharing. The Internet also provides significant opportunities for many businesses to establish, develop, and maintain closer relationships with existing and potential partners. The Internet facilitates network relationships and enables firms to interact more widely and intimately with other stakeholders, including customers, suppliers, and competitors. Poon and Jevons (1997, p. 34) state, “...*the Internet enables the formation and maintenance of business network links which would otherwise be prohibited by barriers such as distance, time, and limited resources*”. This is because the Internet enables firms to break down the barriers of form, time, and place that have typically existed in the traditional marketplace (Overby & Min, 2001). Through the process of sharing resources, each member in the network can obtain necessary resources externally, without going through market mechanisms (Poon & Jevons, 1997). Online interactivity also makes targeting of customers with specific needs more cost-effective, and offers a powerful tool for collaborating with customers on innovation; these capabilities allow firms to develop a fuller understanding of the customer, tighten the “marketing gap” and establish profitable and enduring relationships (Bell & Loane, 2010). The Internet has also changed the very way inter-organizational relationships are developed and administered. In a recent study, Sigfusson and Chetty (2013) found that utilizing online social networking sites enables firms to overcome ‘liability of outsidership’ (Johanson & Vahlne, 2009). This is because social networking sites make it easier to manage larger numbers of relationships, particularly ones with weak ties, an outcome that is especially important for internationalizing firms (Sharma & Blomstermo, 2003). Others argue, however, that while the Internet holds great promise

in facilitating information sharing and relationship building, face-to-face interaction remains important (Mathews, Healy, & Wickramasekera, 2012; Moen, Endresen, & Gavlen, 2003; Prashantham & Berry, 2004). Thus, the Internet should be used only as a complement to physical, more traditional methods of communication. Nonetheless, the Internet provides a promising way to exchange and share resources and harvest the social capital embedded in a firm's network relationships.

Consequences and outcomes of Internet-enabled internationalisation

Finally, a number of studies have examined the consequences of using the Internet for conducting or supporting international business activities. More specifically, these studies have examined how taking advantage of the opportunities afforded by the Internet affects internationalization patterns and firm performance.

Impacts on internationalization patterns. The first group of studies, or sub-theme within this theme examines how using the Internet as a mechanisms for increasing involvement in foreign markets influence the internationalisation patterns of firms, with mixed results.

Findings generally support the argument that using the Internet is an enabling force that makes accelerated internationalization feasible for firms, in particular SMEs (e.g. Gabrielsson and Gabrielsson, 2011; Sinkovics et al., 2013; Moen et al., 2003). It is generally acknowledged that SMEs has traditionally been constrained in their internationalization, due to their relatively small size and resource deficiencies (Kahiya, 2013; Leonidou, 2004) and, as a consequence, internationalize slowly and incrementally (Johanson and Vahlne, 1977). With the advent of the Internet it is now possible for firms to reduce many of these barriers and herewith contribute to an increased speed of internationalization (Berry and Brock, 2004; Hamill, 1997). Firms seeking to expand their business abroad has, for example, traditionally been constrained in their ability to

identify international opportunities, generating new sales leads, gaining access to distribution channels etc. (Kahiya, 2013). However, by taking advantage of the opportunities afforded by the Internet, firms are now increasingly exposed to international stimuli in the form of unsolicited inquiries and orders, why the international awareness, or international orientation, of a firm or decision-maker increases (Berry and Brock, 2004; Sinkovics et al., 2013; Reuber and Fischer, 2011). Furthermore, the Internet provides an easily accessible source of information about foreign market, why using the Internet as an information source may results in a better understanding of foreign markets and international opportunities (Mathews and Healy, 2008; Nguyen and Barrett, 2006; Yamin and Sinkovics, 2006). SMEs also face a number of resource-related barriers that hinder the firm's ability to expand internationally (Kahiya, 2013). However, the Internet may be used as an efficient tool to reduce the costs of internationalization and herewith mitigate cost-related barriers (Moen et al., 2008; Hamill, 1997). As a result, SMEs are no longer encumbered to the same extent by their resource scarcity when expanding into foreign markets. Thus, taking advantage of the Internet can improve SMEs ability to identify international opportunities and generate new sales leads as well as reduce the effects of resource scarcity and herewith contribute to faster internationalization by reducing internationalization barriers (Sasi and Arenius, 2012).

While the majority of the studies included in this review that focus on the impact of the Internet on the internationalization patterns of SMEs finds a positive relationship between Internet use and speed of internationalization, others have found that firms relying on IEI do not exhibit significantly different internationalization patterns compared to those SMEs that relies on more traditional means of internationalization (e.g. Berry and Brock, 2004). This suggests that mere adoption of the Internet is not itself sufficient and that IEI does not ensure accelerated internationalization.

Impacts on performance. Finally, a number of articles focused on the impact of IEI on firm performance. The results from these studies are summarized in Table 3. As demonstrated in Table 3, there is dispute about whether taking advantage of the opportunities afforded by the Internet to enable internationalization has any impact on performance or not. For instance, while Lu and Julian (2007) finds that using the Internet have a positive impact on export marketing performance, when used to provide the firm with a competitive advantage over competitors others have found that while Internet use seems to reduce internationalization barriers for SMEs, IEI has no direct effect on performance (Moen et al., 2008). Thus, findings obtained from existing studies are somewhat equivocal.

Insert table 3 around here

Because of these inconclusive results, some studies have focused on identifying potential moderators that may affect the direction and/or strength of the relationship between performance and IEI in order to probe more deeply into the nature of this relationship. For example, Wang et al. (2011) examined the effect of the provision of two online channel functions (online communication function and online transaction function) on exporting channel performance. Their results indicate that that the strength between performance and using the Internet to allow foreign customers to complete tasks related to order-placement (online transaction function) and to disseminate information about the firm (online communication function) was significantly influenced by international experience. More specifically, using the Internet to implement transaction functions (e.g. placing orders, making payments, and generating sales) will have a stronger impact on performance when firms has less international

experience, while providing online communication functions (e.g. collecting foreign customer information and communicating with them) will have a stronger impact on performance when firms have *more* international experience (Wang et al., 2011).

Our review demonstrates that previous studies have used a variety of measures to operationalize and assess firm performance, including export sales growth (Sinkovics et al., 2013), export ratio (Lal, 2004), profitability (Moon and Jain, 2007), and market share (Moen et al., 2008). This both highlights the multidimensionality of performance, but also indicates a lack of consensus in previous studies, making it difficult to compare findings.

As illustrated in Table 4, almost all of the studies identified (9 out of 11) were found to be using subjective performance measures. Only one study was using objective performance measures, while another study used a mix of subjective and objective performance measures.

Insert Table 4 around here

Discussion and future research agenda

After having reviewed and synthesised existing literature on IEI the most promising avenues for future research are presented below. By means of a systematic review, this study highlights recent progress related to IEI. However, the literature review also illustrates how considerable opportunities for researchers to contribute to the body of knowledge remains despite an increased focus on IEI. We comment on a few of the most promising avenues for future research in each of the three themes identified through the thematic analysis of existing literature below.

Antecedents and drivers of Internet-enabled internationalization

Considerable research has focused on investigating the antecedents and drivers of using the Internet as a means for increasing firm's involvement in foreign markets. Although this research has made significant contributions to the literature on Internet-enabled internationalisation, it is limited in three important ways.

First, future research on the antecedents and drivers of IEI needs to be more carefully linked to theories, as many of the articles included in this review included variables in an ad hoc manner, which limits the theoretical contribution of the studies (Bello and Kostova, 2012). It has been argued that both internationalization (Ruzzier et al., 2006; Gankema et al., 2000) and the adoption of the Internet (Bengtsson et al., 2007) can be seen as innovations. Thus, the innovation-related literature can be used to inform future research on the drivers and antecedents of IEI. We believe that the Technology-Organization-Environment (TEO) framework holds great potential as a theoretical foundation for explaining and predicting firms' usage of the Internet as a tool for increasing their involvement in foreign markets. The TOE framework has been described as a 'generic' theory (Zhu and Kraemer, 2005, p.63) that explains how the firm context influences the adoption and implementation of innovations (Tornatzky and Fleischer, 1990). The TOE framework has been used extensively in previous research across a number of technological, industrial and cultural contexts with great success (Baker, 2012). Thus, we consider the TOE framework to be very useful in future research in order to identify possible antecedents and drivers of IEI related to the firms context.

Second, existing literature has thus far neglected the functions of decision-makers' and their roles in the adoption decision and in post-adoption use. Instead, focus has been on contextual factors in the organizational, technological and environmental realms (e.g., company size, IT infrastructure, IT know-how, and pressure from

competitors, customers, and suppliers) when trying to explain the difference in IEI between firms. Although these have proven to be relevant, some research suggests that they are not exhaustive. Firms are found to be more likely to adopt IT, when decision-makers are positive and knowledgeable towards IT (Mehrtens et al., 2001). Therefore, the risk is high that the existing literature has missed a major explanatory contextual factor. Decision-makers in different firms are likely to have different ‘technological frames’ and perceive the Internet and its possibilities differently (Orlikowski and Gash, 1994; Cornelissen and Werner, 2014; Mishra and Agarwal, 2010). While Internet innovations may be perceived as insignificant by some managers, other managers may perceive them as radical and valuable, depending on their mental models and knowledge structures, which in turn influence their behaviour. Because managerial cognition appears to have an important impact on innovation adoption decisions and the strategic orientation of the firm, it is suggested that in the future, researchers should fully take into account the role of the individual manager in determining the decision to adopt and post-adoption use of the Internet in the internationalization process.

Third, the differential impacts that antecedents can have on Internet use in the different aspects of business processes have been largely ignored in existing literature. As mentioned by Etemad, Wilkinson and Dana (2010), firms seeking to expand their business abroad can use the Internet on the output side, input side, as well as within firms themselves. In addition, Sinkovics, Sinkovics and Jean (2013) highlights that firms can use the Internet either as a sales channel to replace having a physical presence or to support existing export activities such as advertising and promotions. However, the differential impacts that antecedents can have on Internet use in the different aspects of business processes have been largely ignored so far. This can be problematic as previous studies show that IT use in business processes should be deconstructed and studied at a more granular level, as examining the antecedents and drivers of IT use at

an aggregate level ignores that there may be differences related to the drivers and antecedents across the different business processes (Mishra et al., 2007).

Nature of Internet-enabled internationalization

The existing literature has conveyed a thorough understanding of how the Internet can be used to promote and support the firm's internationalization. However, in recent years the Internet has entered a new evolutionary stage, commonly referred to as Web 2.0 (Constantinides and Fountain, 2008). Existing literature has failed to examine how the Internet's breadth of applications has evolved concurrently with this evolution of the Internet itself.

Bell and Loane (2010) state that the introduction of Web 2.0 has given rise to a paradigm shift that opens up new international business opportunities. For instance, Web 2.0 is characterized by its capability to establish and maintain social networks among users (Okazaki and Taylor, 2013). Due to this capability, social networking sites can make it easier for users to manage a large number of relationships, particularly those with weak ties, which are especially important for internationalizing firms (Sigfusson and Chetty, 2013). Furthermore, Web 2.0 provides marketers with "*new opportunities to be effective in reaching consumers across the globe*" [Okazaki and Taylor, (2013), p.67]. However, Web 2.0 technologies can also be used in an intra-/inter-organizational context to enable employees, customers and suppliers to collaborate by organizing and sharing information (McAfee, 2006), which is likely to facilitate organizational learning (Shang et al., 2011). Hence, using Web 2.0 technologies to build a platform on which users can exchange information, express thoughts, and reconfigure explicit knowledge is likely to increase internationalization, because "*development, integration, and transfer of knowledge should be regarded as a critical aspect of strategic management of internationalization*" [Johansson and Vahlne, (2009), p.90].

Consequence and outcomes of Internet-enabled internationalization

The relationship between IEI and firm performance is in clear need of more academic attention, given that performance is a pivotal outcome construct in the study of international strategy (Shoham, 1998). Despite its critical importance, our review demonstrates that the performance impacts of IEI have received little empirical attention. Moreover, studies that have focused on these performance impacts have presented mixed results, suggesting that mere adoption and use of the Internet as a tool for expanding business operations abroad is not enough increase organisational performance. Thus, although progress has been made, more research is clearly needed to understand how using the Internet to as an instrument to expand the firms operation beyond national borders influence subsequent performance.

First, future research must focus on explaining the mixed results obtained so far. Our systematic review of the literature shows that IEI do not necessarily have a significant direct effect on firm performance. Thus, future research must continue to focus on identifying under what conditions using the Internet as an instrument to increase involvement in foreign markets can increase firm performance. In line with Nieto and Fernandez (2005) and Tiessen, Wright and Turner (2001) we believe that future research can benefit by applying a resource-based view (RBV) to analyse the performance impacts of IEI. RBV offers a theoretical base for understanding and explaining how firm's can achieve and sustain competitive advantage and superior performance (Peteraf, 1993; Wernerfelt, 1984) and has become an influential theoretical perspective in both international business research (Peng, 2001) as well as information systems research (Wade and Hulland, 2004). Recently, research on IT business value, that is, the performance impacts of information technology, has started to apply the

RBV as a means to better understand the outcomes and consequences of using information technology in organizations (Wiengarten et al., 2013).

Future research should focus on looking at both IT resources and non-IT complementary resources in order to understand the performance impacts of IEI, rather than focusing on IT resources in isolation. According to Wiengarten et al. (2013, p. 32), *“the alignment between IT and complementary resources is what ultimately makes IT a potential competitive enhancing resource”*. Thus, while IT assets do not live up to the requirements for creating sustained competitive advantages (Nieto and Fernández, 2005; Wu et al., 2006), IT assets can nevertheless lead to sustainable competitive advantages by extending the strategic potential of organization resources with which they are combined (Nevo and Wade, 2011). Taken together, this suggests that future research must pay increasing attention to organizational factors in order to explain and understand the performance impacts of using the Internet to expand business operations beyond national borders. We believe that by taking into consideration the importance of complementary organizational factors and the synergies created from using the Internet, we can better explain the mixed results.

Second, future research should use better measures of firm performance. It is a well-known fact that existing research on performance often suffers from a number of conceptual and methodological limitations (Sousa, 2004). As mentioned earlier, previous studies have studied the firm performance impacts of IEI using a wide array of measures, which may help explain the inconsistent and conflicting findings in existing research (Katsikeas et al., 2000). To date, firm performance has mostly been measured using subjective measures. Even though previous research has shown that there is a strong correlation between objective and subjective performance measures, only relying on subjective measures can be problematic as this correlation is far from perfect (Dawes, 1999). Using subjective measures can also introduce the issue of common-method bias,

if the dependent and independent variable are both obtained from the same respondent (Podsakoff et al., 2003). Thus, when available, future research should use objective performance measure(s) (Dess and Robinson, 1984).

In addition, research to date has focused almost exclusively on the impact of IEI on export performance rather than the overall performance outcomes. While export performance is without question an important construct within international business (Katsikeas et al., 2000), the impacts of IEI on the profitability, growth and long-term survival of firms is equally important. Hence, future research may also wish to look at the performance implications of IEI more broadly by examining how IEI influences organizational performance.

Finally, future research should focus on exploring the potential negative consequences associated with IEI. An important goal of academic research is to unfold the complex role of the Internet in firm internationalization by separating “*the hyped claims of the past from the reality of the present*” [Prashantham, (2005), p.47]. Yet, as others have noted, existing research tends to focus only on the actual and potential positive outcomes associated with using the Internet as an instrument for increasing firms involvement in foreign markets (e.g. Reuber and Fischer, 2011; Sinkovics et al., 2013). A key task for future research is therefore to not only highlighting the potential of the Internet as an instrument for firms to increase their involvement in foreign markets, but also to highlight its limitations.

According to Petersen, Welch and Liesch (2002), the impact of the Internet on firm internationalization is by no means evident, and may even trick firms into what they call ‘rash internationalization’, where the opportunities and global exposure afforded by the Internet entices firms to rapidly expand into a great number of foreign markets which eventually may turn out to be an unsuccessful strategy and force firms to de-internationalize. Thus, in the end, using the Internet as a dominant instrument for

internationalization may prove to have negative consequences. To examine if their predictions are correct, future research should adopt a longitudinal research design. Adopting a longitudinal research design will make it possible to analyse the consequences and outcomes of using the Internet as a foreign operation mode and to discern short-term and long-term effects of IEI.

Another potential negative consequence is related to the isolation from the host market, when pursuing online internationalization. According to Yamin and Sinkovics (2006, p. 340) firms using the Internet as an instrument for internationalization may face what they refer to as a ‘virtuality trap’. A virtuality trap refers to a *‘perception by the internationalizing firm that the learning generated through virtual interactions obviates the need for learning about the target market through non-virtual means’*. Hence, by engaging in IEI can potentially lead to ignorance among decision-makers by inconveniently reducing perceived differences across foreign markets. In turn, this may serve as a barrier to learning about important cultural and market-related differences between the home and host countries and have a negative impact on firm performance (Reuber and Fischer, 2011).

Conclusion

Using narrative synthesis to review and synthesize existing literature on IEI, existing literature was divided into three themes: *antecedents of IEI*, *role of the Internet in internationalisation*, and *outcomes of IEI*. While our knowledge of IEI has progressed, the literature review highlights significant opportunities to expand the current literature. For example, our review highlights that more research is clearly needed to investigating the antecedents and drivers of IEI and how using the Internet to as an instrument to expand the firms operation beyond national borders influence subsequent performance.

Research limitations are inherent in all research, including systematic reviews. This review also has a number of limitations that must be made explicit. First, as explain in the review methodology, only studies from peer-reviewed journals were included as part of this review. This means that relevant studies that are published either as book chapter or in conference proceeding may have been omitted. Excluding studies published outside peer-reviewed journals could potentially introduce publication bias, of the research that appears in peer-reviewed journals is significantly different from the remaining literature (Kepes et al., 2012). Thus, future reviews may want to include literature that are published outside peer-reviewed journals and compare the results of these studies with the studies published in peer-reviewed journals.

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Table 1: Frequency of IEI articles by journal

Journal	No. of articles	Cumulative	Percent
Journal of International Entrepreneurship	6	6	13
International Marketing Review	4	10	21
Journal of International Marketing	4	14	30
International Business Review	3	17	36
Journal of Global Marketing	3	20	43
Journal of Marketing Management	3	23	49
Marketing Intelligence & Planning	2	25	53
Asia Pacific Journal of Marketing and Logistics	1	26	55
Canadian Journal of Administrative Sciences	1	27	57
Critical Perspectives on International Business	1	28	60
Electronic Markets	1	29	62
Family Business Review	1	30	64
Information Systems Journal	1	31	66
International Journal of Internet Marketing and Advertising	1	32	68
International Journal of Organisational Behaviour	1	33	70
International Journal of Retail & Distribution Management	1	34	72
International Journal of Tourism Research	1	35	74
Journal of Business Research	1	36	77
Journal of Euromarketing	1	37	79
Journal of International Business Studies	1	38	81
Journal of international management	1	39	83
Journal of Management	1	40	85
Journal of Marketing Communications	1	41	87
Journal of Small Business and Enterprise Development	1	42	89
Journal of World Business	1	43	91
Small Business Economics	1	44	94
The information society	1	45	96
Thunderbird International Business Review	1	46	98
World Development	1	47	100

Table 2: Overview of past research

Theme	Description	Authors
Antecedents and drivers of IEI	Studies that focus on identifying and analysing the determinants of adopting Internet-based technologies in the internationalization process	Glavas & Mathews (2014); Glavas et al (2014); Cho & Tansuhaj (2013); Sinkovics et al (2013); Gabrielsson & Gabrielsson (2011); Moon & Jain (2007); Mostafa et al (2005); Nguyen & Barrett (2006); Eid (2005); Kraemer et al (2005); Moini & Tesar (2005); Raymond et al (2005); Lal (2004); Tiessen et al (2001); Bennett (1998); Bennett (1997)
Role of the Internet	Studies that focus on how firms are using Internet-based technologies in the internationalization process	Sigfusson & Chetty (2013); Tseng & Johnsen (2011); Bell & Loane (2010); Etemad et al (2010); Moen et al (2008); Forsgren & Hagström (2007); Arenius et al (2006); Froscht et al (2006); Loane (2006); Nguyen & Barrett (2006); Nieto & Fernandez (2005); Aspelund & Moen (2004); Loane et al (2004); Piscitello & Sgobbi (2004); Moen et al (2003); Kotha et al (2001); Lituchy & Rail (2000); Hamill & Gregory (1997)
Consequences and outcomes of IEI	Studies that focus on investigating how IEI affects internationalisation behaviour and firm performance	Bianchi & Mathews (2015); Sinkovics et al (2013); Mathews et al (2012); Wang et al (2011); Mathews & Healy (2008); Moen et al (2008); Zhang et al (2008); Lu & Julian (2007); Mathews & Healy (2007); Arenius et al (2006); Nguyen & Barrett (2006); Rothaermel et al (2006); Yamin & Sinkovics (2006); Kraemer et al (2005); Berry & Brock (2004); Lal (2004); Morgan-Thomas & Bridgewater (2004); Kim (2003); Prasad et al (2001); Davis & Harveston (2000)

Table 3: Literature summary: performance implications of IEI

Author	Aim of research	Findings
Kraemer <i>et al.</i> (2005)	To examine the relationship between firm globalization, scope of e-commerce use, and firm performance.	Globalization leads to higher levels of e-commerce use, which in turn has positive impacts on performance, in terms of efficiency, coordination and market impacts.
Lal (2004)	To identify and analyse the factors that influence the adoption of e-business in SMEs and consequences of the adoption on export performance	Performance of firms in international markets has been better for those that have adopted more advanced e-business tools. The size of operations and the skill intensity of a firm's workforce also play an important role in its export performance.
Moen, Madsen and Aspelund (2008)	To provide empirical knowledge about the actual use of ICT with regard to the international marketing activities of SMEs and its subsequent effect on performance	There is no direct significant association between use of ICT and performance in international markets. However, indirect effects do exist through the relation with new market knowledge.
Moon and Jain (2007)	To examine the factors that affect the decisions of exporting firms to adopt the Internet to implement their specific international marketing mix	Characteristics of the firm, product, channel and environment influence the degree of international internet marketing activities of exporting firms. Furthermore International Internet marketing has a positive impact on export performance
Morgan-Thomas & Bridgewater (2004)	To identify the factors that influence success in using internet-based export channels	The effectiveness with which firms use internet-based export channels is associated with: (1) having their own exports sales force, (2) commitment to and investment in internet technologies, and (3) adoption pressures from customers and competitors.
Nguyen and Barrett (2006)	To develop and test a model that incorporates the knowledge-creating role of the internet in international business activities of firms in a transitional market, namely Vietnam	Collection and transformation of information from the Internet affect foreign sales intensity. Market and learning orientations facilitate this process. Internalization is a means of acquiring tacit or experiential knowledge
Prasad <i>et al.</i> (2001)	To investigate the extent to which integration of the Internet into marketing activities mediates the impact of market orientation on firms' marketing competencies that, in turn, are related to export performance	Firms' integration of Internet technology into marketing activities generally leverages the influences of market orientation on the firms' marketing competencies, which in turn have a positive impact on their export performance.

Table 4: Overview of performance measures in included articles

Author(s)	Variable	Type of measure	Dimensions			
			Sales-related	Market-related	Profit-related	General
Bianchi & Mathews (2015)	Export growth	Subjective		X		
Sinkovics et al. (2013)	Export performance	Subjective	X		X	X
Wang et al. (2011)	Export Channel Performance	Subjective	X			
Moen et al. (2008)	Performance in international markets	Subjective	X	X	X	X
Lu & Julian (2007)	Export marketing performance	Mixed				X
Moon & Jain (2007)	Export performance	Subjective	X	X	X	
Kraemer et al. (2005)	Firm performance	Subjective		X		
Lal (2004)	Export performance	Objective	X			
Morgan-Thomas & Bridgewater (2004)	Export success	Subjective	X	X	X	X
Prasad & Ramamurthy (2001)	Export performance	Subjective	X	X	X	
Davis & Harveston (2000)	Organizational growth	Subjective				X